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IN THE UNITED STATES PATENT & TRADEMARK OFFICE

IN RE APPLICATION OF :  
KAI SCHUMACHER, ET AL. : EXAMINER:  
SERIAL NO: 10/539,061 :  
FILED: JUNE 15, 2005 : GROUP ART UNIT: 1755  
FOR: TITANIUM DIOXIDE COATED :  
WITH SILICON DIOXIDE

DECLARATION UNDER 37 C.F.R. 1.132

COMMISSIONER FOR PATENTS  
ALEXANDRIA, VIRGINIA 22313

SIR:

I, Kai Schumacher hereby declare:

1. I am employed by Degussa AG.
2. I received a degree from Chemistry in Mainz.
3. I am familiar with the specification of the above-identified patent application and a familiar with the technology of using a microbial catalyst to produce acrylamide.
3. The following observations and experiments were carried out by me or under my direct supervision and control.
4. The uncoated titania particles of Example 1 described in US 6,740,312 (Chopin et al were synthesized.
5. It was found that at least some of the  $\text{TiO}_2$  particles are aggregated, which means two or more of the particles are bound together. As these particles are used for the subsequent coating with silica, at least some  $\text{TiO}_2$  particles are not completely coated with silica. The

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areas where two or more aggregated  $\text{TiO}_2$  particles are bound together are not available for coating.

6. In contrast, the particles of the present invention are primary particles of titania coated with silica. Thus, the particles claimed in the present invention differ from those disclosed in Chopin et al..

7. The undersigned declares further that all statements made herein of his own knowledge are true and that all statements made on information and belief are believe to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of this application or any patent issuing thereon.

Kai Schumacher

Name

Kai Schumacher

Signature

10/10/2006

Date